

Coding & Serialisation

Delegated Act on the Detailed Rules for a Unique Identifier for Medicinal products for Human use, and its Verification

Concept Paper submitted for Public Consultation

EFPIA Individual Response

26 April 2012

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EFPIA has, in partnership with EAEPC, GIRP and PGEU, submitted a detailed joint response to the European Commission Concept Paper. The joint response contains detailed positions and supporting evidence on all the points raised in the Concept Paper.

This separate EFPIA response is fully aligned with the joint response and is intended to complement that document in certain areas where EFPIA wishes to add additional arguments and data, or simply reinforce our support for elements of the joint response.

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A. CONSULTATION TOPIC N°1: CHARACTERISTICS AND TECHNICAL SPECIFICATIONS OF THE UNIQUE IDENTIFIER

Consultation item n°1: Please comment on points 1 and 2 (policy options n°1/1 and n°1/2). Where do you see the benefits and disadvantages of each policy option?

Directive 2011/62/EU represents an important opportunity to establish a harmonised coding standard across Europe. EFPIA therefore supports **option n° 1/2**, i.e. harmonisation through Regulation. This option will ensure smooth implementation, as standard interfaces and devices can be used; will help to reduce costs and complexity in the system; and will avoid fragmentation in Europe.

As mentioned in the joint response, **option n°1/1** would give the manufacturer the greatest flexibility to use the appropriate technical solution. However, this flexibility could result in the fragmentation of different specifications and data carriers existing on the market, potentially using different standards for equipment and processes that cannot be guaranteed. This would be likely to increase the overall costs of the system.

We therefore believe the Delegated Act should require the use of existing international standards which are already used for serialisation numbers and data carriers in certain Member States and beyond.

In order to function as a viable safety feature, the unique identification number of the pack should also be serialised randomly.

Consultation item n°4: Which of the two options set out under point (c) of point 2.1.2 is in your view preferable? Where do you see advantages and disadvantages? Please comment.

EFPIA accepts that there is currently a need for national numbers for some countries while calling for a long term transition towards harmonised pack codes. EFPIA recognises that it is unrealistic to replace national numbers before the implementation of the verification system in Europe as these numbers are used in too many systems/by too many parties (pharmacies, regulatory authorities, etc.).

The Delegated Act should therefore allow the use of national numbers where required; however, they should not be seen as a mandatory feature for all markets. In the long term national numbers should be replaced by the unique product number.

EFPIA supports the position outlined in the joint stakeholder response that the pack code should be comprised of the four data elements listed. Further, EFPIA also supports option 2 of the consultation paper allowing to include a national number in a “fifth” data element. The particular advantage of this option is for multi-country packs where more than one national number may be needed on the same pack for use in different target markets. In such a situation option 2 potentially allows the inclusion of

more than one national number in the same code, providing an advantage for both manufacturers and pharmacists, having to deal with only one code on the pack.

The Importance of Standards

Whichever option is applied, EFPIA believes that it must always be possible for a manufacturer to use the internationally recognised **GS1 standards** (i.e. GTIN or NTIN). Using GS1 standards allows the manufacturer to run a single set of standards across its operations and with supply chain partners to identify and serialise products. If multiple standards are used the complexity of operations is amplified, driving up costs and introducing a higher risk of error.

When using GS1 standards the GTIN should be used as the product code. Where a national number is required, and a GTIN alone does not fulfil that function, two options should be provided for:

1. A GTIN used in the DataMatrix plus a “fifth” data field holding the national number¹; or
2. An NTIN created and used in the DataMatrix in the place of the GTIN.

If another national number needs to be added as in the case of some shared multi-country packs, then it would be included in the “fifth” data field.

For further background on the EFPIA position regarding the use of GS1 standards, please see the [EFPIA-GS1 Shared Vision](#)

Consultation item n°5: Please comment on the three concepts described under point 2.2. Where do you see the benefits and disadvantages of each of the three concepts. What are the costs for each concept? Please quantify your reply, wherever possible, by listing for example:

- costs for reading devices for the different carriers;
- costs for adapting packaging lines of medicines packaged for the EU market.

Costs of 2D Barcodes

EFPIA supports the position set out in the joint response in favour of the DataMatrix code.

EFPIA conducted an exercise in 2010-2011 to assess implementation costs for the Falsified Medicines Directive (FMD). That exercise forms the basis for the cost estimates presented in this, as well as in the joint, response.

Manufacturer costs for unit level serialisation (apply DataMatrix code and provide necessary ICT for serialisation):

- Total annual costs for industry (EU-27) (€ million): 125

¹ In accordance with GS1 standards, if a separate national reimbursement number is required under national requirements it should always appear as a fifth element alongside the GTIN – not instead of the GTIN

- Annual costs for example large manufacturer² (€ million): 8
- Cost per pack (€ cent): 1.6

The “Cost Effectiveness” of Pre-Printing Barcodes

As outlined in the joint response, some stakeholders maintain that it would be possible to reduce the cost of applying serial numbers by ordering cartons from third parties that are “pre-printed” with barcodes containing the serial number, product code and, in Member States where such exists, national number.

EFPIA, in line with the joint response, would like to stress that while pre-printing presents certain marginal benefits when handling smaller volumes, printing pack data in the packaging line provides greater benefits in terms of logistics and cost-effectiveness when handling higher volumes of products.

The suggested cost benefits for pre-printed cartons stem from simpler requirements for packaging lines. When using cartons with pre-printed serial numbers, there would be no need for a print head on the line. However, the line would still require a camera, a reject ejection mechanism and packaging line controller software. And the backend IT system would not be simplified, as it would require additional interfaces to carton manufacturers.

Furthermore, pre-printing cartons would introduce an additional risk to the security of the overall system as valid serial numbers would need to be shared with additional external partners, i.e. the carton suppliers. The security risk would also be increased through the time gap between producing the cartons and having them uploaded and dispensed as serial numbers would potentially be available for criminals to obtain and apply to falsified products.

Finally, pre-printed cartons would not have batch number and expiry date in machine-readable form. While these data elements could be ‘looked up’ by making a live connection to a central database rather than encoding them on the pack, this process is likely to require upgrades of scanning equipment to manage a live connection and will place additional load on the central database thus requiring a higher system specification and increased costs.

Taken together, and as noted in the joint response, the marginal cost benefits of pre-printing small volumes are outweighed by the security risks it introduces to the system and by the diseconomies of scale involved with pre-printing large volumes. Much greater cost-effectiveness is achieved when the four data elements are encoded in machine-readable form on the outer packaging.

² Average manufacturer assumed to have €7B sales and 500M units per year in Europe

Pack Code Quality

The quality of the DataMatrix code applied to the pack is also an important consideration and there should be two objectives when applying machine readable codes:

- Objective n° 1 is that the data read matches the intended content encoded by the manufacturer. This can be achieved by the manufacturer reading the code after printing and rejecting any that do not match the intended coded data;
- Objective n° 2 is that there is a very low incidence of codes failing to read. This can be achieved through reference to ISO15415 and use of ECC200 error correction.

ISO15415 defines a method of testing a DataMatrix to estimate how it will perform when scanned in the supply chain. Grade A codes are less likely to experience scanning issues than grade Bs, and so on.

There are, however, certain issues associated with the strict application of ISO15415:

- It is not possible to definitively say if a DataMatrix will scan as this is dependent on the equipment ultimately used within the supply chain;
- The verification equipment used to grade DataMatrix codes could give slightly different readings between models/suppliers;
- It is not possible for ISO15415 grading to be carried out at production speeds as it is intended to be an off-line process.

Given these challenges, manufacturers cannot be expected to guarantee that every pack they produce conforms to a specific grade. ISO 15415 should instead be used as a reference or benchmark for on-line code checking devices, in ensuring that DataMatrix codes on products are of high quality. As a general principle, a target should be set of DataMatrix codes with a grade C or better but grades D codes are acceptable in smaller quantities.

Human-readable Data

EFPIA would like to reiterate the joint response as regards human-readable data, i.e. all products should contain at least a minimum of human-readable data (batch number and expiry date) if not a larger amount of human-readable data (including product code, batch number, expiry date, and possibly serial number). The use of human-readable data, including the serial number, should be evaluated in the light of experience with the system.

The data elements should be included in a human-readable format unless there is a pack size or other technical constraint in which case batch number and expiry date must be included.

C. CONSULTATION TOPIC N°3 - PROVISIONS ON THE ESTABLISHMENT, MANAGEMENT AND ACCESSIBILITY OF THE REPOSITORIES SYSTEM

Consultation item n°8: Please comment on the three policy options set out in points 1 to 3. Where do you see the benefits and disadvantages? Please comment on the costs of each of these policy options. Please quantify your reply, wherever possible.

This applies in particular to the estimated one-off costs and running costs for a repositories system. Where possible, please provide information on past experiences with a repositories system at individual company level and at national level (taking into account the experiences of Member States and companies).

EFPIA supports the position set out in the joint EAEPG-EFPIA-GIRP-PGEU response in favour of policy option n° 3/1 ‘**stakeholder governance**’.

Costs Associated with Stakeholder Governance

Our organisations are jointly developing the concept (the European Stakeholder Model, ESM) for a cost-effective and scalable product verification system (the European Medicines Verification System, EMVS)³ to be run by stakeholder organisations, at European and national levels, on a non-profit basis.

Costs for a repositories system to support end-to-end verification in EU-27:

- Total annual costs for manufacturing authorisation holders who are required to bear the cost of the repositories system (EU-27) (€ million): 120-205
- Annual costs for example large manufacturer (€ million): 9-18
- Cost per pack (€ cent): 1.3-2.2

The Benefits of Stakeholder Governance

As set out in the joint response, the ESM was tested at national level through a successful pilot project carried out in Sweden by EFPIA in partnership with Swedish retail pharmacy chain Apoteket AB and local wholesalers Tamro and Oriola KD from September 2009 to February 2010.

For further information (video), please click [here](#).

Based on this pilot as well as on extensive work currently carried out by relevant stakeholders, the advantages of policy option n° 3/1 “stakeholder governance” clearly stand out as follows:

³ See Glossary in Annex 2 to our joint response

- It is the most flexible and cost-effective solution;
- It will be able to adapt to requirements in the future which are currently not in the scope or are not foreseeable;
- A stakeholder governed system would help to keep overhead costs as small as possible since those responsible for paying for the system under the FMD would also be responsible for implementing it.

The EU Governance option

The EU Governance option promises certain advantages. For example:

- A centralised approach could help to reduce the complexity between different systems (interoperability);
- Manufacturers would only have to supply data via one interface which could lead to cost benefits during system set up and operations;
- Enforceability might be higher as governance would be done by a central body.

However, an EU approach would also generate the following problems:

- Technical challenges associated with providing timely responses to verification requests, as one system has to respond to all requests in Europe;
- The decision process for an EU governance approach is likely to be highly complex as 27 Member States will want to be represented in the decision groups.

The National Governance Option

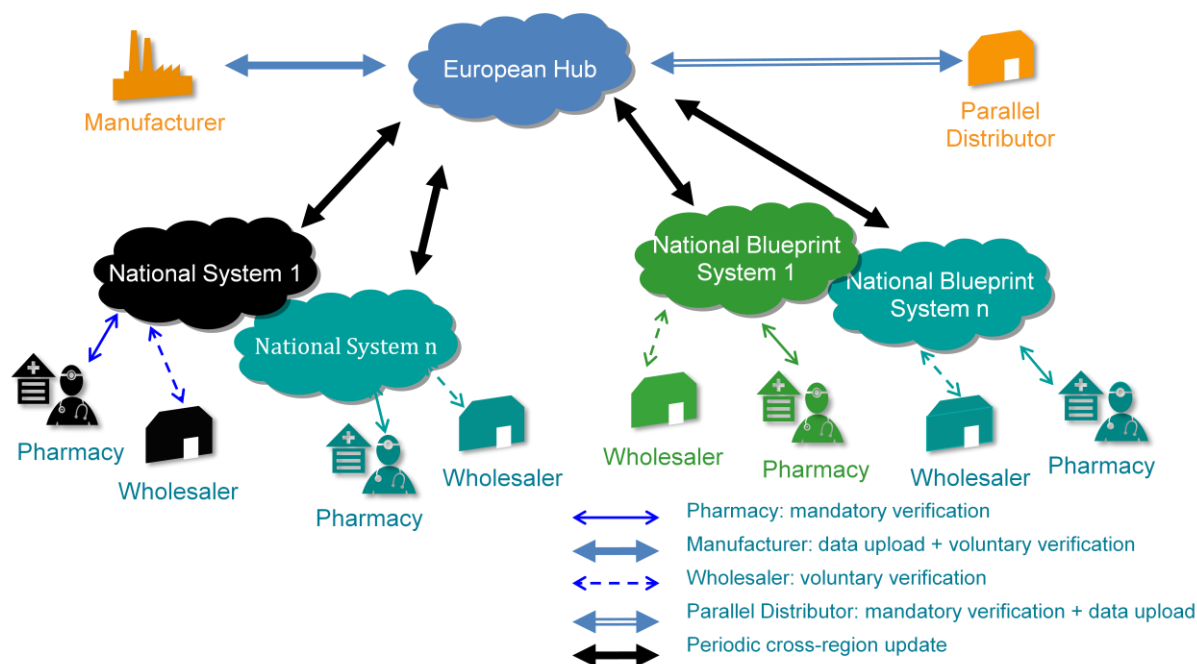
Like the EU Governance option, the national option could be seen to offer certain advantages:

- It would allow for the development of systems specific to the distribution chain in the respective country;
- The decision process would be relatively straightforward as governments of the specific country would be in charge;
- The number of actors linked to the system would be limited.

However, a national approach would also create the following issues:

- It increases the complexity of the overall system by the fact that - in the worst case scenario - 27 different systems would have to be developed;
- As the concept paper recalls, national systems would need to have an interface with all other national systems in the EU to ensure that packs traded between Member States can be effectively verified at the point of dispensing. Ensuring that all 27 individual national systems are inter-connected and communicate would be highly complex and very costly;
- Due to the associated fixed/overhead cost, it is assumed that a national governed system will not be cost-efficient. Furthermore overall system ownership and responsibilities will be difficult.

With its hybrid nature, the ESM takes the best of each of the above, i.e. a **single interface** and **high enforceability** through the European Hub, as well as **flexibility and adaptability** to country/region needs through national repositories (either established locally or based on a central blueprint to reduce cost). The ESM promises to be highly **cost-effective**, drawing on the expertise of the key actors of the supply chain, financially responsible for the system.



The European Medicines Verification System (EMVS)

The **National Blueprint System (nBPS)** depicted in the diagram above is a way to allow national stakeholders to join the European Medicines Verification System without the need of building a separate own national system. In short, through the Blueprint system national stakeholders hand over design and operation to the organisation that runs the European Hub, i.e. the EMVO (European Medicines Verification Organisation).

The Blueprint Model is likely to be more economical than a set of separate national systems both in terms of set-up costs and running costs. Indeed, with regard to set-up costs, less expertise is required at national level since implementation is not “from scratch” but based on a pre-existing template (the Blueprint) that is adapted to specific needs. As regards running costs, there is a favourable relation to be found between fixed and variable costs as potentially many systems are operated by the same ICT provider (that of the European Hub) and there are less (potentially no) stakeholder resources required to take care of day-to-day operational issues.

Finally, the nBPS has a great potential for generating excellent economies of scale (subject to the number of participating countries and adherence to the template

functionality). Also, it is worth highlighting that governance is purely national, in agreement with the EMVO.

In short, optimal cost-effectiveness and interoperability would be delivered by having 27 national Blueprint Systems (nBPS) connected via the European Hub. The worst case scenario would be to have 27 different independent systems.

Consultation item n°9: Please comment on point 4.1. Are there other items of information which should be taken into consideration when addressing the issue of commercially sensitive information in the delegated act?

As clearly stated in the joint response, EFPIA fully appreciates the sensitivities surrounding data access.

In accordance with existing legal principles, all stakeholders having access to the system will own the product verification data they generate in interacting with the system. That said, the patient safety objective of the FMD cannot be effectively achieved without access to certain commercially sensitive data in certain circumstances, e.g. when there is a negative verification. In order to maximise patient safety benefits, it will therefore be important to ensure that the effectiveness of the system is not compromised by undue restrictions on access to data.

Consultation item n°10: Please comment on points 4.2 and 4.3. What aspects should be taken into consideration in the delegated act?

EFPIA would also like to reiterate the point made in the joint response that the stakeholder model envisaged will not generate, process, store or share patient-identifiable data.

D. CONSULTATION TOPIC N°4 - LISTS CONTAINING THE MEDICINAL PRODUCTS OR PRODUCT CATEGORIES WHICH, IN THE CASE OF PRESCRIPTION MEDICINES SHALL NOT BEAR THE SAFETY FEATURES, AND IN THE CASE OF NON-PRESCRIPTION MEDICINES SHALL BEAR THE SAFETY FEATURES

Consultation item n°11: Which approach seems the most plausible from your view? Can you think of arguments other than those set out above? Can you think of other identification criteria to be considered?

EFPIA firmly believes that all prescription-only medicines without any exception should be subject to the same level of security. There are many reasons for this:

- Introducing safety features on only some prescription-only medicines will simply move the threat to those not protected, shifting, rather than eliminating the problem. Since the “White List” of products **not** requiring a unique identifier will

be publicly available, there is a high threat that counterfeiters will target those products to fake.

- The manufacturing cost of counterfeit medicines is negligible since they often contain little or no active ingredient, manufacturing does not conform to any form of GMP, and the product is often shipped in bulk rather than finished form. With the high volumes that can be achieved by selling into the legitimate supply chain, even low priced products can deliver strong financial returns for counterfeiters.
- As in any system where there are exceptions to a rule, a lack of systematic use of the safety features is likely to increase risks due to human error.
- It is logistically easier for industry from a manufacturing perspective to put unique identifiers on all products and less likely to produce manufacturing errors.
- It is more straightforward for pharmacists to assume all products should be scanned. If not every pack needs to be scanned, the act of scanning may not become part of the standard workflow and so the pharmacist may forget to scan – meaning counterfeits may go undetected.
- If not every pack needs to be scanned, the pharmacist may receive a counterfeit pack with no barcode on and assume it is on the “White list”.

EFPIA recommends using the identification approach based on Anatomical Therapeutic Chemical Code (ATC 4) in order to ensure that products with similar therapeutic effect – and thus with similar counterfeiting risk profiles – are treated in the same way.

E. CONSULTATION TOPIC N°5 - OTHER ISSUES

Consultation item n°13: Please raise any other issue or comment you would wish to make which has not been addressed in the consultation items above.

The introduction of new mandatory safety features on medicine packs will necessitate a degree of regulatory activity. Given the likely product scope of the FMD requirements, it will be important to ensure that this activity is made as straightforward, resource-light and cost effective as possible.

All current mandatory product information is reflected in EMA/national authority **product information templates** that must be completed and provided in MA applications, and which form part of the marketing authorisation (“annexes”, for centralised products) once a product is approved.

While not currently clear, EFPIA assumes that the EMA/national authorities will amend their templates (and, therefore, the MA annexes) to ensure that companies indicate whether or not the packaging will include one or more of the new safety features, and possibly also describe the general nature of the features.

If they do revise their templates, the regulators will presumably expect companies to revise their approved product information to comply. Under this scenario - where the change is imposed by the legislation – it would arguably be unreasonable to require that companies prepare, submit (and pay for) variations or Art. 61 (3) notifications *specifically* to introduce this change. EFPIA would therefore like to suggest that companies be free to wait and submit the safety features information as part of another regulatory procedure that also affects the approved product information annexes. If there is no such other regulatory activity on the product, a reasonable period (e.g. 3 years) should be allowed for formally submitting the revision. This approach is consistent with that used for the introduction of other product information template revisions.
